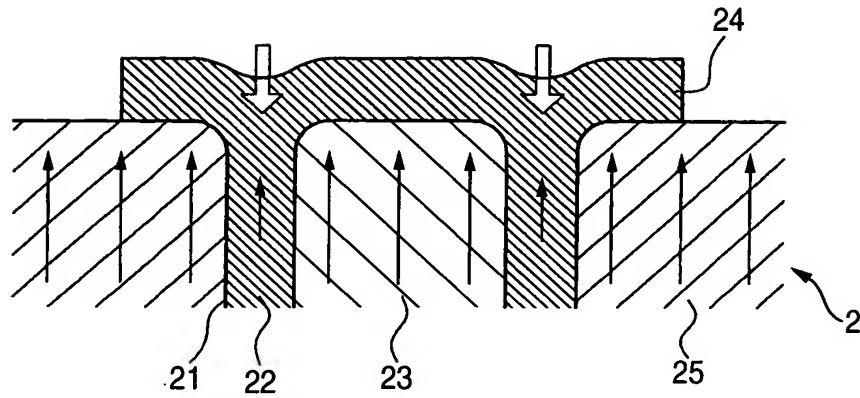


FIG. 2



A cross-sectional diagram of a dam. The dam body is shown with a central core of hatched material, flanked by concrete or masonry sections. A large semi-circular arch is visible at the top of the dam. Below the dam body, a series of vertical arrows point downwards, indicating the direction of water flow or seepage through the dam structure.

FIG. 4

	EXAMPLE	COMPARISON
NO HEAT CYCLE	0/30	8/17
AFTER 100 CYCLES	0/30	26/51
AFTER 500 CYCLES	0/30	10/18

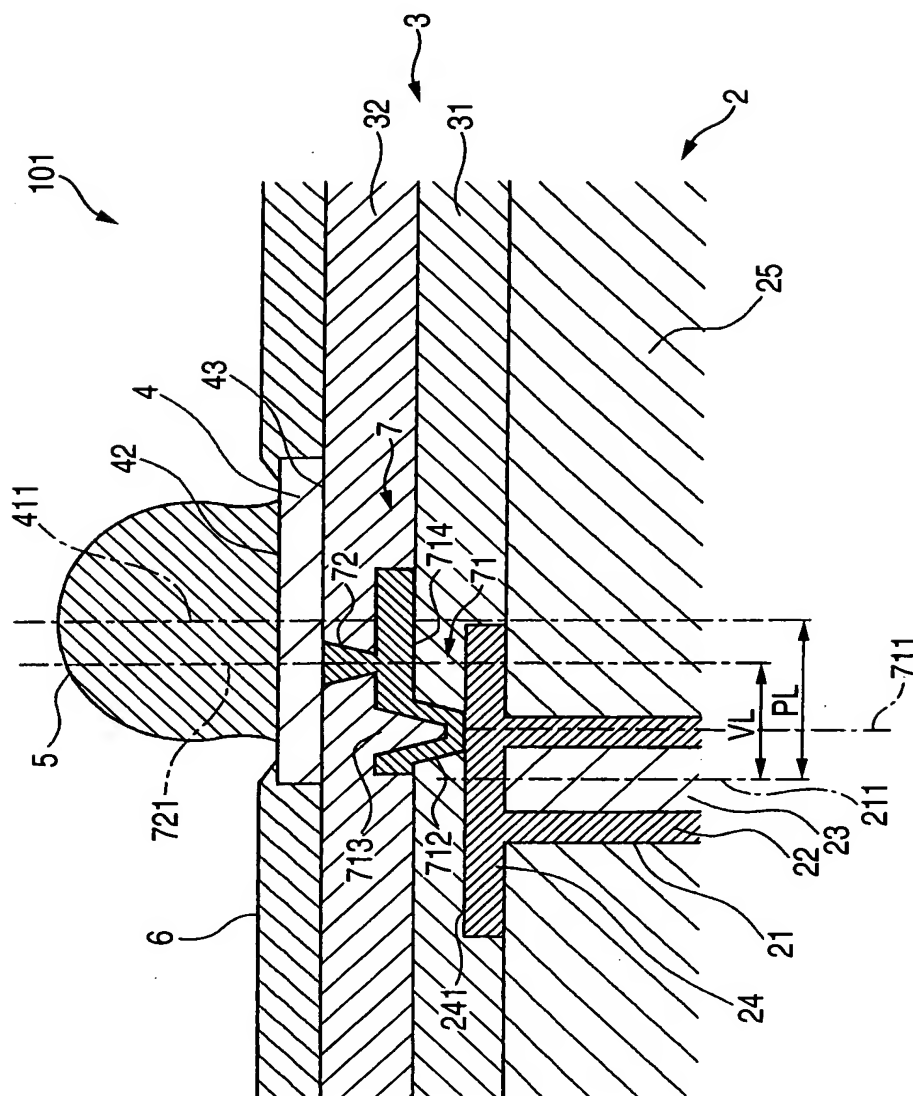


FIG. 6

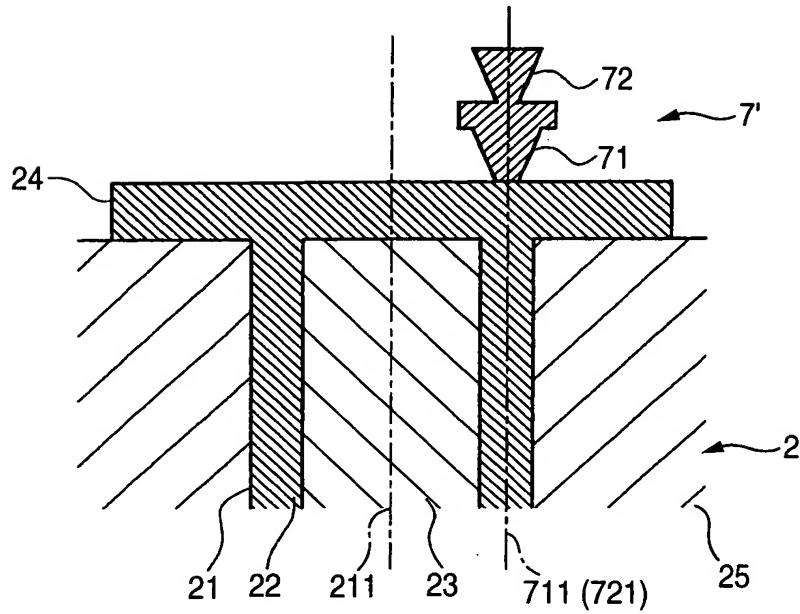


FIG. 7

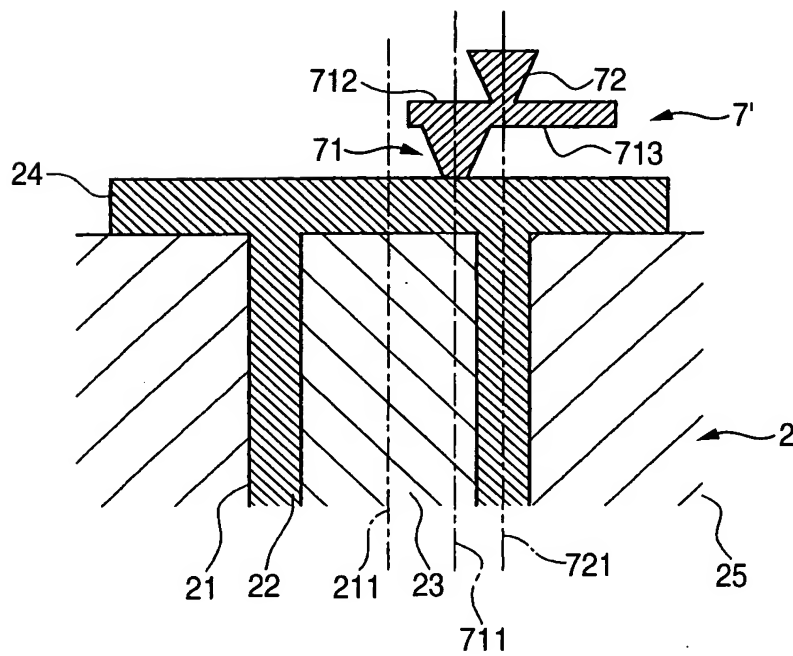


FIG. 8

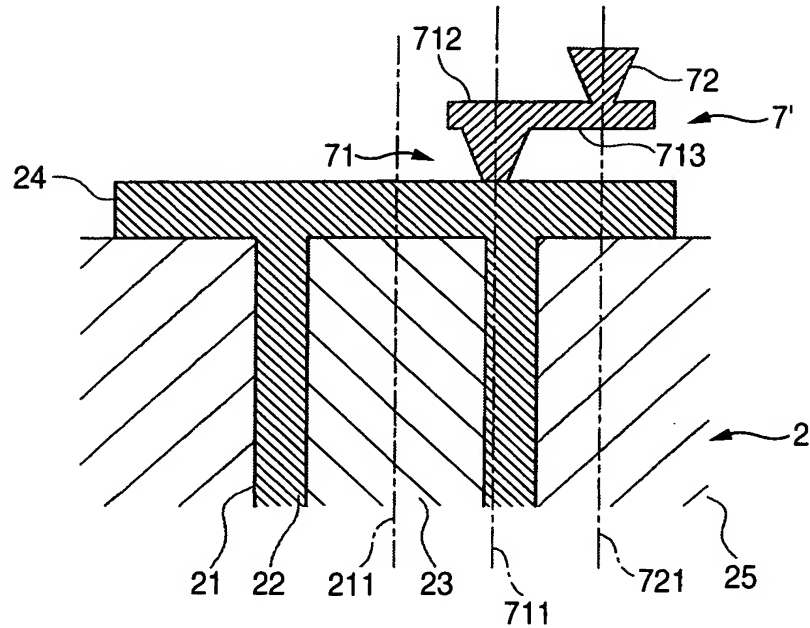
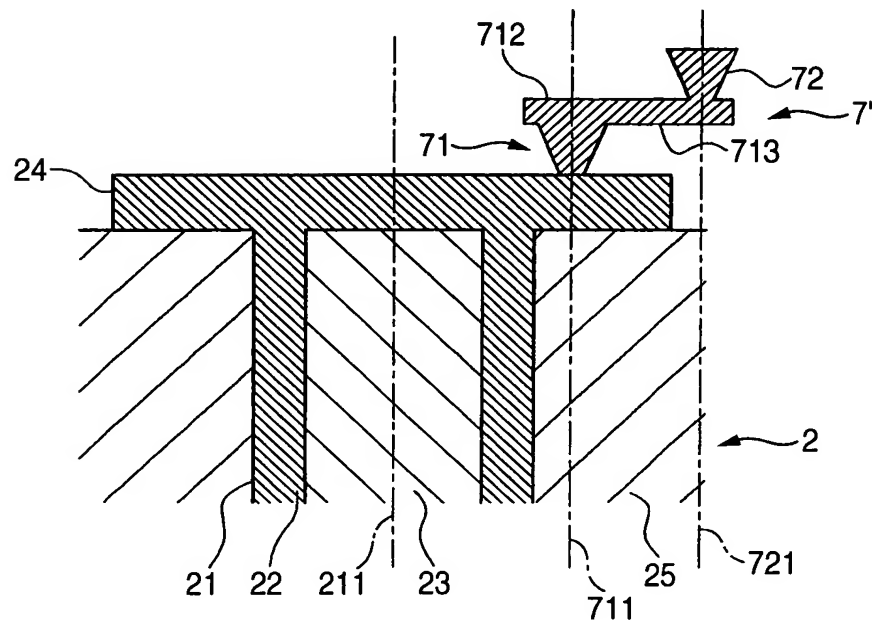


FIG. 9



This cross-sectional view shows a semiconductor device with a substrate 201. A first layer 2 is formed on the substrate, containing a first opening 21. A second layer 3 is formed on the first layer, containing a second opening 31. A third layer 4 is formed on the second layer, containing a third opening 41. A fourth layer 5 is formed on the third layer, containing a fourth opening 51. A fifth layer 6 is formed on the fourth layer, containing a fifth opening 61. A sixth layer 7 is formed on the fifth layer, containing a sixth opening 71. A seventh layer 8 is formed on the sixth layer, containing a seventh opening 81. An eighth layer 9 is formed on the seventh layer, containing an eighth opening 91. A ninth layer 10 is formed on the eighth layer, containing a ninth opening 101. A tenth layer 11 is formed on the ninth layer, containing a tenth opening 111. A eleventh layer 12 is formed on the tenth layer, containing an eleventh opening 121. A twelfth layer 13 is formed on the eleventh layer, containing a twelfth opening 131. A thirteenth layer 14 is formed on the twelfth layer, containing a thirteenth opening 141. A fourteenth layer 15 is formed on the thirteenth layer, containing a fourteenth opening 151. A fifteenth layer 16 is formed on the fourteenth layer, containing a fifteenth opening 161. A sixteenth layer 17 is formed on the fifteenth layer, containing a sixteenth opening 171. A seventeenth layer 18 is formed on the sixteenth layer, containing a seventeenth opening 181. An eighteenth layer 19 is formed on the seventeenth layer, containing an eighteenth opening 191. A nineteenth layer 20 is formed on the eighteenth layer, containing a nineteenth opening 201. A twentieth layer 21 is formed on the nineteenth layer, containing a twentieth opening 211. A twenty-first layer 22 is formed on the twentieth layer, containing a twenty-first opening 221. A twenty-second layer 23 is formed on the twenty-first layer, containing a twenty-second opening 231. A twenty-third layer 24 is formed on the twenty-second layer, containing a twenty-third opening 241. A twenty-fourth layer 25 is formed on the twenty-third layer, containing a twenty-fourth opening 251. A twenty-fifth layer 26 is formed on the twenty-fourth layer, containing a twenty-fifth opening 261. A twenty-sixth layer 27 is formed on the twenty-fifth layer, containing a twenty-sixth opening 271. A twenty-seventh layer 28 is formed on the twenty-sixth layer, containing a twenty-seventh opening 281. A twenty-eighth layer 29 is formed on the twenty-seventh layer, containing a twenty-eighth opening 291. A twenty-ninth layer 30 is formed on the twenty-eighth layer, containing a twenty-ninth opening 301. A thirtieth layer 31 is formed on the twenty-ninth layer, containing a thirtieth opening 311. A thirty-first layer 32 is formed on the thirtieth layer, containing a thirty-first opening 321. A thirty-second layer 33 is formed on the thirty-first layer, containing a thirty-second opening 331. A thirty-third layer 34 is formed on the thirty-second layer, containing a thirty-third opening 341. A thirty-fourth layer 35 is formed on the thirty-third layer, containing a thirty-fourth opening 351. A thirty-fifth layer 36 is formed on the thirty-fourth layer, containing a thirty-fifth opening 361. A thirty-sixth layer 37 is formed on the thirty-fifth layer, containing a thirty-sixth opening 371. A thirty-seventh layer 38 is formed on the thirty-sixth layer, containing a thirty-seventh opening 381. A thirty-eighth layer 39 is formed on the thirty-seventh layer, containing a thirty-eighth opening 391. A thirty-ninth layer 40 is formed on the thirty-eighth layer, containing a thirty-ninth opening 401. A fortieth layer 41 is formed on the thirty-ninth layer, containing a fortieth opening 411. A forty-first layer 42 is formed on the fortieth layer, containing a forty-first opening 421. A forty-second layer 43 is formed on the forty-first layer, containing a forty-second opening 431. A forty-third layer 44 is formed on the forty-second layer, containing a forty-third opening 441. A forty-fourth layer 45 is formed on the forty-third layer, containing a forty-fourth opening 451. A forty-fifth layer 46 is formed on the forty-fourth layer, containing a forty-fifth opening 461. A forty-sixth layer 47 is formed on the forty-fifth layer, containing a forty-sixth opening 471. A forty-seventh layer 48 is formed on the forty-sixth layer, containing a forty-seventh opening 481. A forty-eighth layer 49 is formed on the forty-seventh layer, containing a forty-eighth opening 491. A forty-ninth layer 50 is formed on the forty-eighth layer, containing a forty-ninth opening 501. A fiftieth layer 51 is formed on the forty-ninth layer, containing a fiftieth opening 511. A fifty-first layer 52 is formed on the fiftieth layer, containing a fifty-first opening 521. A fifty-second layer 53 is formed on the fifty-first layer, containing a fifty-second opening 531. A fifty-third layer 54 is formed on the fifty-second layer, containing a fifty-third opening 541. A fifty-fourth layer 55 is formed on the fifty-third layer, containing a fifty-fourth opening 551. A fifty-fifth layer 56 is formed on the fifty-fourth layer, containing a fifty-fifth opening 561. A fifty-sixth layer 57 is formed on the fifty-fifth layer, containing a fifty-sixth opening 571. A fifty-seventh layer 58 is formed on the fifty-sixth layer, containing a fifty-seventh opening 581. A fifty-eighth layer 59 is formed on the fifty-seventh layer, containing a fifty-eighth opening 591. A fifty-ninth layer 60 is formed on the fifty-eighth layer, containing a fifty-ninth opening 601. A sixtieth layer 61 is formed on the fifty-ninth layer, containing a sixtieth opening 611. A sixty-first layer 62 is formed on the sixtyth layer, containing a sixty-first opening 621. A sixty-second layer 63 is formed on the sixty-first layer, containing a sixty-second opening 631. A sixty-third layer 64 is formed on the sixty-second layer, containing a sixty-third opening 641. A sixty-fourth layer 65 is formed on the sixty-third layer, containing a sixty-fourth opening 651. A sixty-fifth layer 66 is formed on the sixty-fourth layer, containing a sixty-fifth opening 661. A sixty-sixth layer 67 is formed on the sixty-fifth layer, containing a sixty-sixth opening 671. A sixty-seventh layer 68 is formed on the sixty-sixth layer, containing a sixty-seventh opening 681. A sixty-eighth layer 69 is formed on the sixty-seventh layer, containing a sixty-eighth opening 691. A sixty-ninth layer 70 is formed on the sixty-eighth layer, containing a sixty-ninth opening 701. A seventieth layer 71 is formed on the sixty-ninth layer, containing a seventieth opening 711. A seventy-first layer 72 is formed on the seventieth layer, containing a seventy-first opening 721. A seventy-second layer 73 is formed on the seventy-first layer, containing a seventy-second opening 731. A seventy-third layer 74 is formed on the seventy-second layer, containing a seventy-third opening 741. A seventy-fourth layer 75 is formed on the seventy-third layer, containing a seventy-fourth opening 751. A seventy-fifth layer 76 is formed on the seventy-fourth layer, containing a seventy-fifth opening 761. A seventy-sixth layer 77 is formed on the seventy-fifth layer, containing a seventy-sixth opening 771. A seventy-seventh layer 78 is formed on the seventy-sixth layer, containing a seventy-seventh opening 781. A seventy-eighth layer 79 is formed on the seventy-seventh layer, containing a seventy-eighth opening 791. A seventy-ninth layer 80 is formed on the seventy-eighth layer, containing a seventy-ninth opening 801. An eightieth layer 81 is formed on the seventy-ninth layer, containing an eightieth opening 811. An eighty-first layer 82 is formed on the eightieth layer, containing an eighty-first opening 821. An eighty-second layer 83 is formed on the eighty-first layer, containing an eighty-second opening 831. An eighty-third layer 84 is formed on the eighty-second layer, containing an eighty-third opening 841. An eighty-fourth layer 85 is formed on the eighty-third layer, containing an eighty-fourth opening 851. An eighty-fifth layer 86 is formed on the eighty-fourth layer, containing an eighty-fifth opening 861. An eighty-sixth layer 87 is formed on the eighty-fifth layer, containing an eighty-sixth opening 871. An eighty-seventh layer 88 is formed on the eighty-seventh layer, containing an eighty-seventh opening 881. An eighty-eighth layer 89 is formed on the eighty-eighth layer, containing an eighty-eighth opening 891. An eighty-ninth layer 90 is formed on the eighty-ninth layer, containing an eighty-ninth opening 901. A ninetieth layer 91 is formed on the eighty-ninth layer, containing a ninetieth opening 911. A hundredth layer 92 is formed on the ninetieth layer, containing a hundredth opening 921. A hundred-first layer 93 is formed on the hundredth layer, containing a hundred-first opening 931. A hundred-second layer 94 is formed on the hundred-first layer, containing a hundred-second opening 941. A hundred-third layer 95 is formed on the hundred-second layer, containing a hundred-third opening 951. A hundred-fourth layer 96 is formed on the hundred-third layer, containing a hundred-fourth opening 961. A hundred-fifth layer 97 is formed on the hundred-fourth layer, containing a hundred-fifth opening 971. A hundred-sixth layer 98 is formed on the hundred-fifth layer, containing a hundred-sixth opening 981. A hundred-seventh layer 99 is formed on the hundred-sixth layer, containing a hundred-seventh opening 991. A hundred-eighth layer 100 is formed on the hundred-seventh layer, containing a hundred-eighth opening 1001. A hundred-ninth layer 101 is formed on the hundred-eighth layer, containing a hundred-ninth opening 1011. A hundred-tenth layer 102 is formed on the hundred-ninth layer, containing a hundred-tenth opening 1021. A hundred-eleventh layer 103 is formed on the hundred-tenth layer, containing a hundred-eleventh opening 1031. A hundred-twelfth layer 104 is formed on the hundred-eleventh layer, containing a hundred-twelfth opening 1041. A hundred-thirteenth layer 105 is formed on the hundred-twelfth layer, containing a hundred-thirteenth opening 1051. A hundred-fourteenth layer 106 is formed on the hundred-thirteenth layer, containing a hundred-fourteenth opening 1061. A hundred-fifteenth layer 107 is formed on the hundred-fourteenth layer, containing a hundred-fifteenth opening 1071. A hundred-sixteenth layer 108 is formed on the hundred-fifteenth layer, containing a hundred-sixteenth opening 1081. A hundred-seventeenth layer 109 is formed on the hundred-sixteenth layer, containing a hundred-seventeenth opening 1091. A hundred-eighteenth layer 110 is formed on the hundred-seventeenth layer, containing a hundred-eighteenth opening 1101. A hundred-nineteenth layer 111 is formed on the hundred-eighteenth layer, containing a hundred-nineteenth opening 1111. A hundred-twentieth layer 112 is formed on the hundred-nineteenth layer, containing a hundred-twentieth opening 1121. A hundred-twenty-first layer 113 is formed on the hundred-twentieth layer, containing a hundred-twenty-first opening 1131. A hundred-twenty-second layer 114 is formed on the hundred-twenty-first layer, containing a hundred-twenty-second opening 1141. A hundred-twenty-third layer 115 is formed on the hundred-twenty-second layer, containing a hundred-twenty-third opening 1151. A hundred-twenty-fourth layer 116 is formed on the hundred-twenty-third layer, containing a hundred-twenty-fourth opening 1161. A hundred-twenty-fifth layer 117 is formed on the hundred-twenty-fourth layer, containing a hundred-twenty-fifth opening 1171. A hundred-twenty-sixth layer 118 is formed on the hundred-twenty-fifth layer, containing a hundred-twenty-sixth opening 1181. A hundred-twenty-seventh layer 119 is formed on the hundred-twenty-sixth layer, containing a hundred-twenty-seventh opening 1191. A hundred-twenty-eighth layer 120 is formed on the hundred-twenty-seventh layer, containing a hundred-twenty-eighth opening 1201. A hundred-twenty-ninth layer 121 is formed on the hundred-twenty-eighth layer, containing a hundred-twenty-ninth opening 1211. A hundred-thirtieth layer 122 is formed on the hundred-twenty-ninth layer, containing a hundred-thirtieth opening 1221. A hundred-thirty-first layer 123 is formed on the hundred-thirtieth layer, containing a hundred-thirty-first opening 1231. A hundred-thirty-second layer 124 is formed on the hundred-thirty-first layer, containing a hundred-thirty-second opening 1241. A hundred-thirty-third layer 125 is formed on the hundred-thirty-second layer, containing a hundred-thirty-third opening 1251. A hundred-thirty-fourth layer 126 is formed on the hundred-thirty-third layer, containing a hundred-thirty-fourth opening 1261. A hundred-thirty-fifth layer 127 is formed on the hundred-thirty-fourth layer, containing a hundred-thirty-fifth opening 1271. A hundred-thirty-sixth layer 128 is formed on the hundred-thirty-fifth layer, containing a hundred-thirty-sixth opening 1281. A hundred-thirty-seventh layer 129 is formed on the hundred-thirty-sixth layer, containing a hundred-thirty-seventh opening 1291. A hundred-thirty-eighth layer 130 is formed on the hundred-thirty-seventh layer, containing a hundred-thirty-eighth opening 1301. A hundred-thirty-ninth layer 131 is formed on the hundred-thirty-eighth layer, containing a hundred-thirty-ninth opening 1311. A hundred-fortieth layer 132 is formed on the hundred-thirty-ninth layer, containing a hundred-fortieth opening 1321. A hundred-forty-first layer 133 is formed on the hundred-fortieth layer, containing a hundred-forty-first opening 1331. A hundred-forty-second layer 134 is formed on the hundred-forty-first layer, containing a hundred-forty-second opening 1341. A hundred-forty-third layer 135 is formed on the hundred-forty-second layer, containing a hundred-forty-third opening 1351. A hundred-forty-fourth layer 136 is formed on the hundred-forty-third layer, containing a hundred-forty-fourth opening 1361. A hundred-forty-fifth layer 137 is formed on the hundred-forty-fourth layer, containing a hundred-forty-fifth opening 1371. A hundred-forty-sixth layer 138 is formed on the hundred-forty-fifth layer, containing a hundred-forty-sixth opening 1381. A hundred-forty-seventh layer 139 is formed on the hundred-forty-sixth layer, containing a hundred-forty-seventh opening 1391. A hundred-forty-eighth layer 140 is formed on the hundred-forty-seventh layer, containing a hundred-forty-eighth opening 1401. A hundred-forty-ninth layer 141 is formed on the hundred-forty-eighth layer, containing a hundred-forty-ninth opening 1411. A hundred-fiftieth layer 142 is formed on the hundred-forty-ninth layer, containing a hundred-fiftieth opening 1421. A hundred-fifty-first layer 143 is formed on the hundred-fiftieth layer, containing a hundred-fifty-first